PATHOLOGY AND BACTERIOLOGY

UNDER THE CHARGE OF

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Perirenal Apoplexy and Sclerosis.—As early as 1841 Willis described a disease of the perirenal tissues in which multiple spontaneous hemorrhages and fibroses were the chief lesions. Since then, others have made similar observations and at present some 34 cases have been reported. The pathogenesis is not clear, and Lehnert (*Frank. Zeit. f. Path.*, 1914, xv, 268) has added another study with the suggestion as to the causative factor. The disease occurred in a man of 62 who had suffered recurrent attacks of rheumatism. Chronic valvular disease was present in the heart, while the kidneys were in a state of advanced interstitial nephritis. Associated with these, there was an unusual development of perirenal fat, throughout which many islands of hemorrhage were found. Evidence of former hemorrhage was also present while grades of inflammation could be demonstrated. It appeared that the individual had suffered repeated attacks of perirenal hemorrhages and repair. There was no evidence that the immediate lesions within the kidney had any association with blood extravasations about the capsule, nor were there any lesions in the adrenals to indicate their association in the process. It would seem that the factors bringing about the renal inflammation were also active in producing a perinephritis. The author believes that much of the hemorrhage was the result of mechanical trauma. That, however, such hemorrhage may be directly associated with the perinephritis is indicated in the report of cases in which there was not only hemorrhage in the perirenal tissues but also in the muscles and other organs.

Experimental Polyneuritis in Birds and Its Relation to Beriberi in Man.—Tasawa (*Ztschr. f. exper. Path. u. Therap.*, 1915, xvii, 27) repeated the experiments of Eijkman and others in reproducing paresis in birds by the feeding of polished rice and grain products. Others have concluded that the polyneuritis gallinarum so obtained was identical with beriberi in man. Some 200 fowl and 120 pigeons were used in these experiments. He found that when birds were fed upon polished rice and water only they suffered great emaciation and nervous debility. Motor weakness developed in about twenty days and progressed until the animals were unable to control any of the voluntary muscles. Marked degeneration of the motor nerves were demonstrated. In other instances the conditions appeared to arise through a central nervous disturbance rather than peripheral. These cases proved quite different from true beriberi. During the progress of the condition contractures and even convulsive seizures of isolated muscles were observed. The author found that when the feeding with polished rice was accompanied with other foods in moderate quantity the emaciation and anemia could be prevented but the polyneuritis would nevertheless appear. Naturally with the proper quantitative feeding these lesions may be prevented. He found that a similar neuritis can be developed by feeding cane sugar, white flour, white bread or boiled fish. The severity and character of the disease differs but very little from those induced by rice. The subcutaneous injection of rice bran was found to moderate as well as to prevent the disease. It would appear that the disease is the result of metabolic disturbances rather than an intoxication resulting from abnormal fermentation in the gastro-intestinal canal. Up to the present satisfactory results have not been obtained in experimentally producing the disease in mammalia. The results, however, obtained in birds are pathologically so similar to the muscle and nerve degenerations found in beriberi in man that the author believes conclusions can be drawn from these experiments. In animals as well as man there is an individual predisposition which permits of the development of sporadic cases among groups on a common diet.

Experimental Studies on Extirpation of Lung.—KAWAMURA (*Deutsch. Ztschr. f. Chir.*, 1914, 131, H. iii) found that dogs in which one lung has been completely removed, survive the operation and show no ill effects subsequently. It is even possible to take away some of the remaining lung tissue. The difficulty of the operation lies mainly in dealing with the stump of the main bronchus. The remaining lung undergoes a compensatory enlargement whose maximum is reached in thirty to sixty days. The empty pleural cavity on the side of extirpation is gradually filled in by a displacement of the heart and mediastinum, while the diaphragm rises considerably and the thoracic wall becomes depressed upon the side of operation. In some instances spinal curvature with its convexity toward the side of the operation develops. There are no histological changes of any note in the thoracic tissues, save evidence of compensatory emphysema with more or less hypertrophy of the pulmonary tissues.

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